



# *The Hebrew University of Jerusalem*

## *Syllabus*

### *Human growth and development - 75122*

*Last update 04-11-2015*

*HU Credits: 2*

*Degree/Cycle: 1st degree (Bachelor)*

*Responsible Department: medicine - basic studies*

*Academic year: 0*

*Semester: 1st Semester*

*Teaching Languages: Hebrew*

*Campus: Ein Karem*

*Course/Module Coordinator: Prof. Asher Ornoy*

*Coordinator Email: [ornoy@cc.huji.ac.il](mailto:ornoy@cc.huji.ac.il)*

*Coordinator Office Hours: If needed: appointment in the Teratology laboratory*

*Teaching Staff:*

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Prof Asher Ornoy  
Dr. Itai Berger

Course/Module description:

A total of 28 hours of lectures will be given which will cover the main developmental milestones of infancy, childhood, adolescence and old age. We will describe fine and gross motor development; development of language and communication; behavioral changes as a factor of age especially in childhood, adolescence and old age. Physical growth and the physiologic changes in old age will also be discussed. In addition we will describe the more common developmental and behavioral abnormalities such as autism, attention deficit/hyperactivity disorder and muscle diseases.

Course/Module aims:

To teach the principles and main stages of human growth and development especially of the cognitive, motor, behavioral, language and communication skills throughout the life cycle, with a special emphasis on childhood.

Learning outcomes - On successful completion of this module, students should be able to:

On successful completion of this module, students should be able to:

- Describe the major developmental milestones in early and late childhood.
- Identify children with developmental delay.
- Classify developmental services in Israel.
- Show the importance of early prevention of developmental disorders.
- Explain the physical and mental changes during puberty and ageing.

Attendance requirements(%):

80%

Teaching arrangement and method of instruction: Lectures and large group clinical case discussions

Course/Module Content:

- Introduction to Growth and development;
- Growth patterns;
- Percentiles and factors affecting growth;
- Prematurity and consequences;

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- Cognitive development;
  - Language development;
  - Motor development;
  - Mental retardation – etiology and assessment;
  - Child abuse and neglect;
  - Development of vision and hearing;
  - Physical and emotional changes in adolescence and puberty;
  - Ageing: understanding the process - physiologic changes in the different organs;
  - Attention Deficit/Hyperactivity Disorder (AD/HD), Autism, intrauterine CMV infection and Down syndrome: clinical case presentations and discussions.

### Required Reading:

There are 10-12 required clinical and scientific publications that are listed in the syllabus of the course each year. The final examination contains questions on these publications:

In 2011 the following list contained the required reading:

1. Cornier E. Attention Deficit/Hyperactivity Disorder: a review and update. *J of Ped. Nursing*, 23:345-357, 2008.
2. Shapiro BK. Cerebral palsy: a reconceptualization of the spectrum. *J of Pediatrics*, 145:S3-S7, 2004.
3. De Magalhaes JP & Faragher RGA. Cell division and mammalian aging: integrative biology insights from genes that regulate longevity. *BioEssays*, 30:567-578, 2008.
4. Muscular Dystrophy A recently published review
5. Bloom ED et al. The developmental Neurobiology of autism spectrum disorder. *J of Neuroscience*. 26: 6897-6906, 2006.
6. Tabuchi A. Synaptic plasticity – regulated gene expression: a key event in the long lasting changes of neuronal function. *Biol. Pharm.Bull.* 31:327-335, 2008.
7. Pauly JR, Slotkin TA. Maternal tobacco smoking, nicotine replacement and neurobehavioral development. *Acta Paediatrica* 97:1331-1337, 2008.
8. Steinhausen HC, Blattmann B, Pfund F. Developmental outcome in children with Intrauterine exposure to substances, *European Addiction Research*, 13:94-100, 2007.
9. Ivanovic DM et al. Head size and intelligence, learning, nutritional status and brain development. *Neuropsychologia*, 42:1118-1131, 2004.
10. Bonnier C. Evaluation of early stimulation programs for enhancing brain development. *Acta Paediatrica* 97:853-858, 2008.

### Additional Reading Material:

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Course/Module evaluation:

End of year written/oral examination 100 %

Presentation 0 %

Participation in Tutorials 0 %

Project work 0 %

Assignments 0 %

Reports 0 %

Research project 0 %

Quizzes 0 %

Other 0 %

Additional information: